

Update on comparison between BeAGLE and E665

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2020.07.30

Lab vs. CMS frame for positive (muXe)

Rapidity distribution for all positive hadrons :

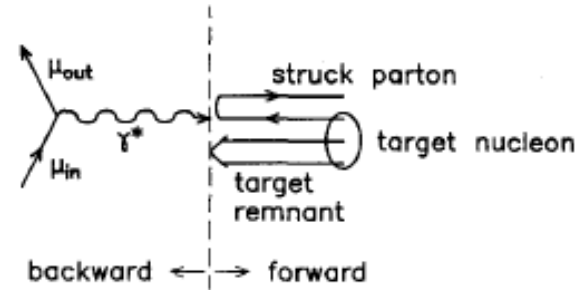
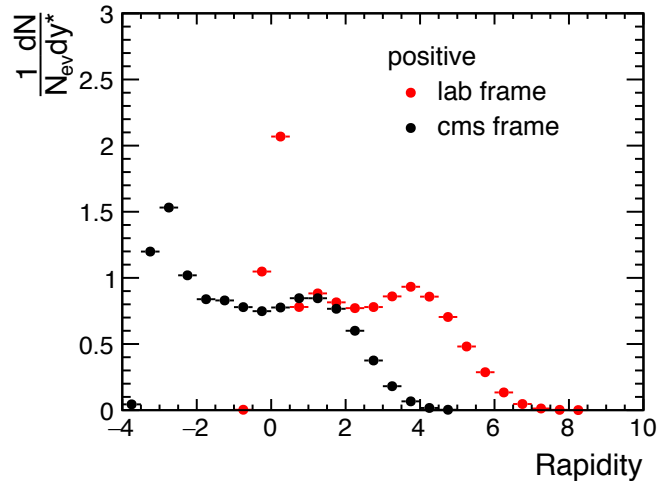
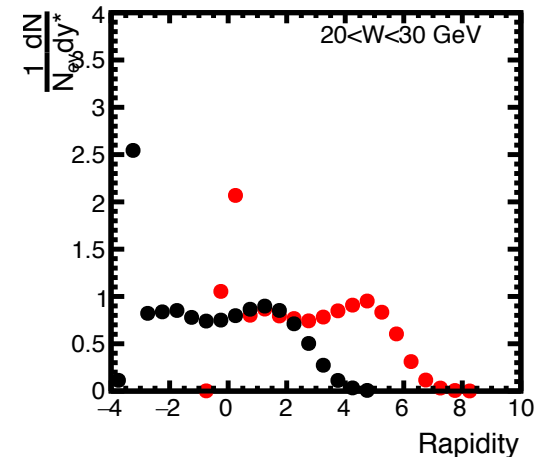
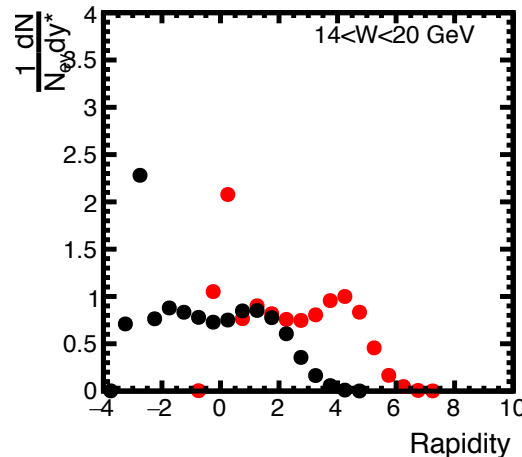
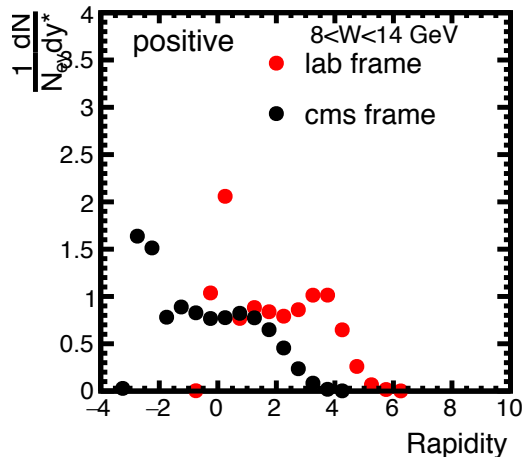


Fig. 1. Deep-inelastic muon-nucleon scattering in the quark-parton model, as viewed in the hadronic center-of-mass system

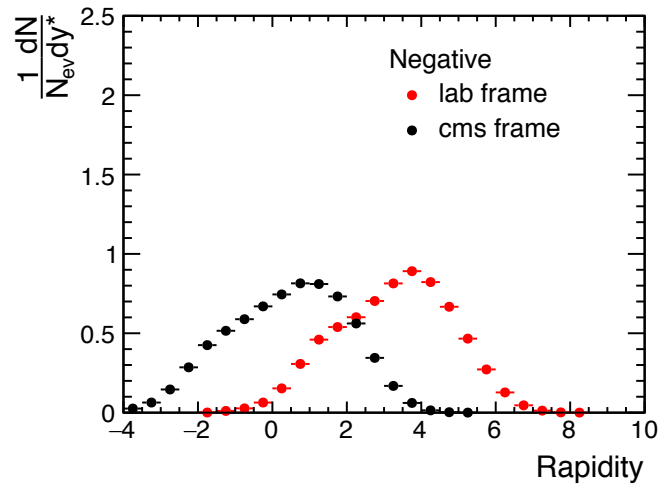
The struck parton is emitted into the forward direction, while the target remnant travels into the backward direction. The hadronic CMS frame is defined by the system formed by the **virtual photon** and the **target nucleon**.

Rapidity distribution for positive hadrons, in three bins of W:

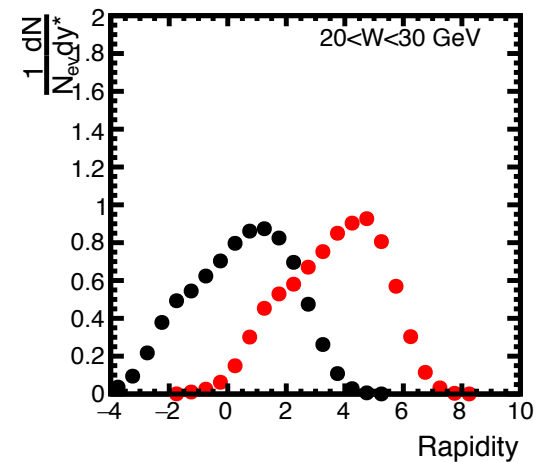
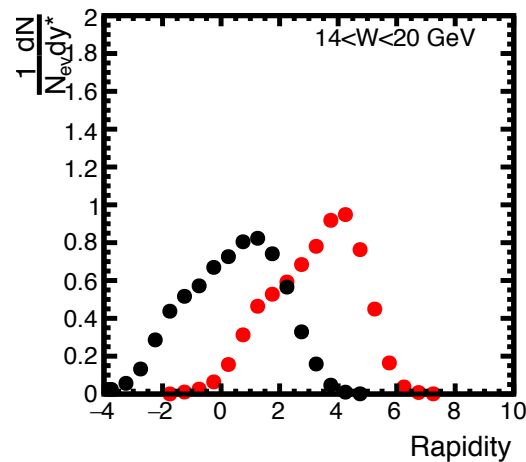
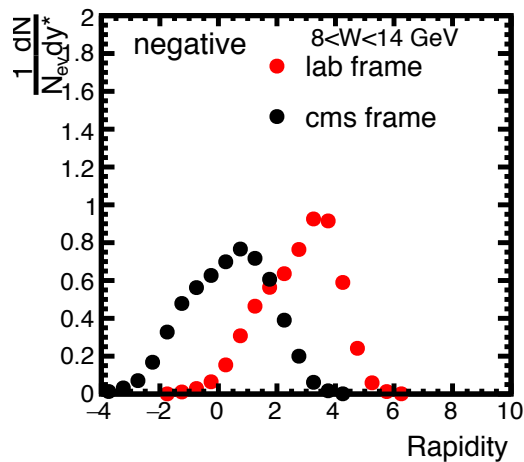


Lab vs. CMS frame for negative (muXe)

Rapidity distribution for all negative hadrons :



Rapidity distribution for negative hadrons, in three bins of W:

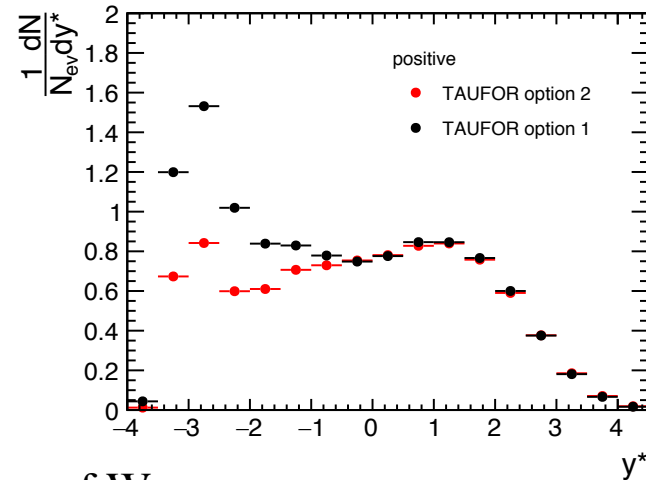


TAUFOR option 1 vs. option2 for **positive** in **cms** frame

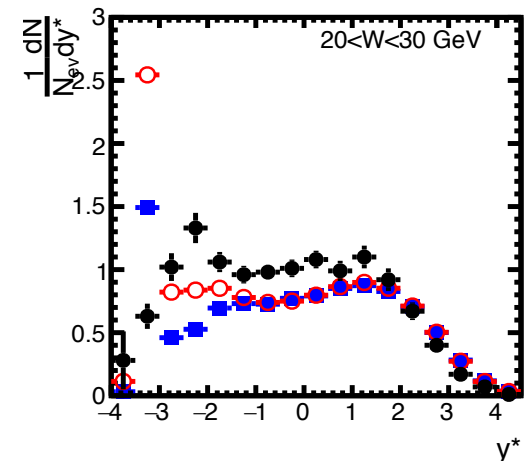
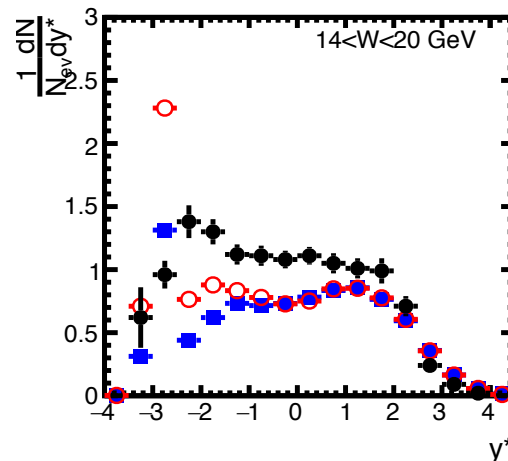
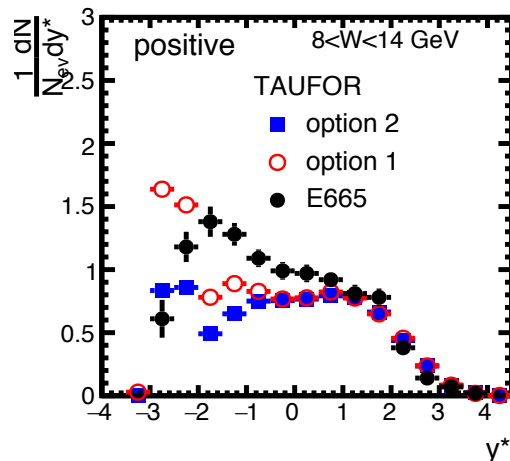
Rapidity distribution for all positive hadrons :

Change the third parameter of TAUFOR
from 1 to 2:

$$\tau_0 = 5 \text{ fm}$$



Rapidity distribution for positive hadrons, in three bins of W:

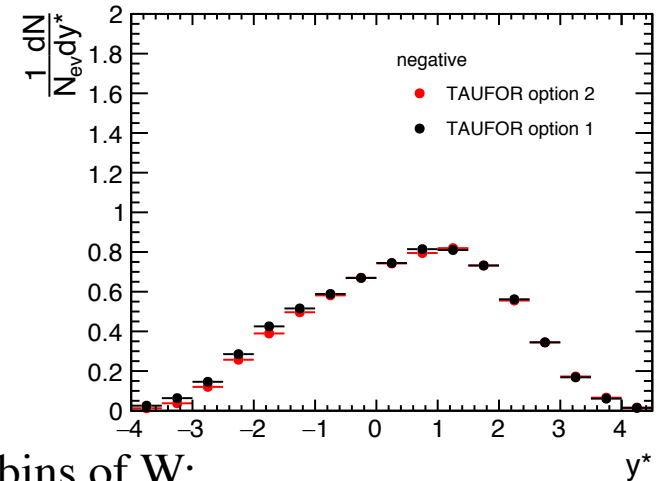


TAUFOR option 1 vs. option2 for **negative** in **cms** frame

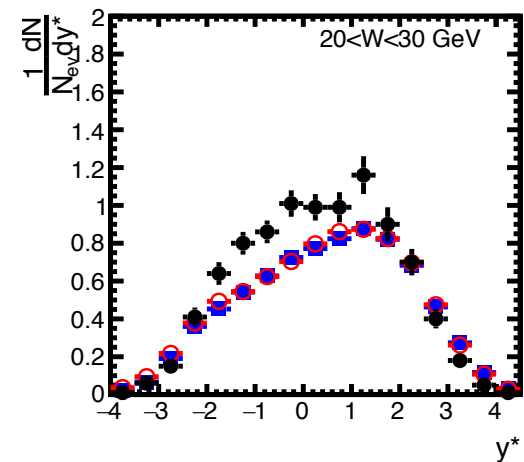
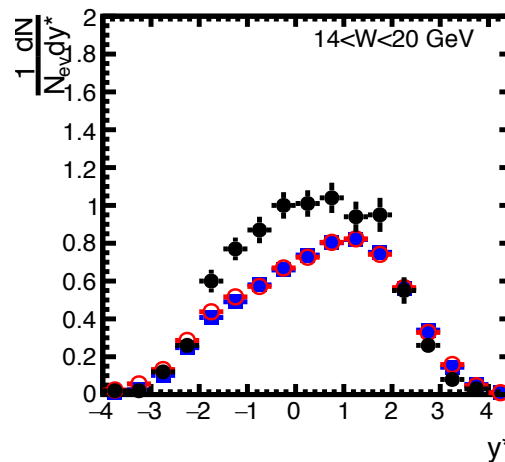
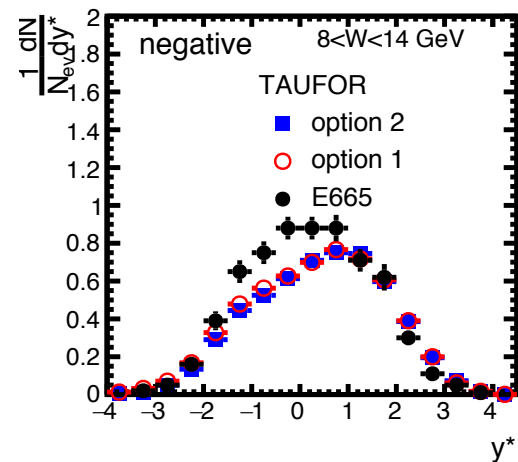
Rapidity distribution for all negative hadrons :

Change the third parameter of TAUFOR
from 1 to 2:

$$\tau_0 = 5 \text{ fm}$$

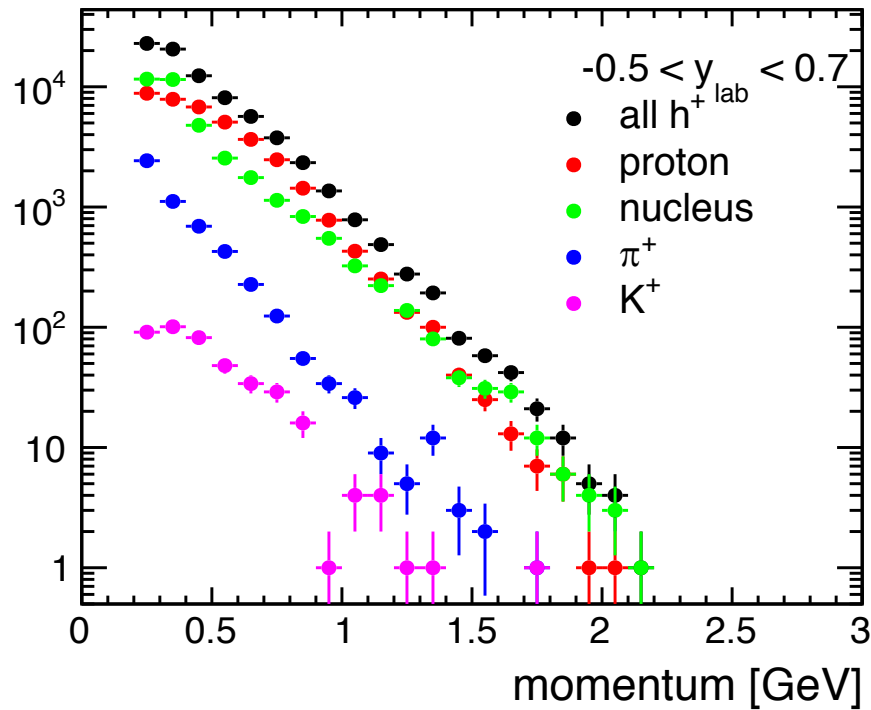


Rapidity distribution for negative hadrons, in three bins of W:



Momentum distributions

Positive particles in the peak near $y=0$ (lab frame $-0.5 < y < 0.7$):



	number
All h^+	79076
proton	37919
nucleus	35576
π^+	5157
K^+	413

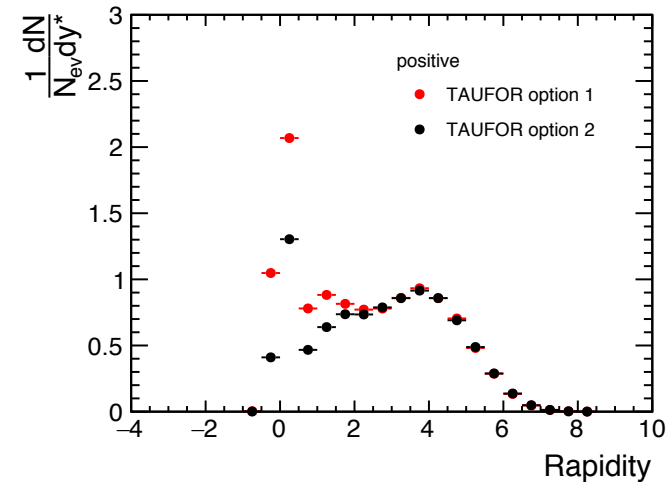
Backup

TAUFOR option 1 vs. option2 for positive in lab frame

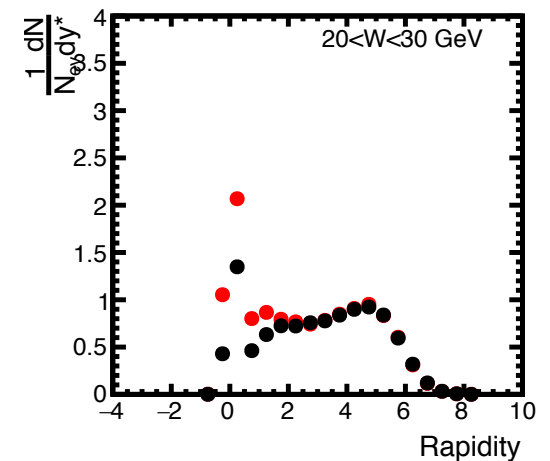
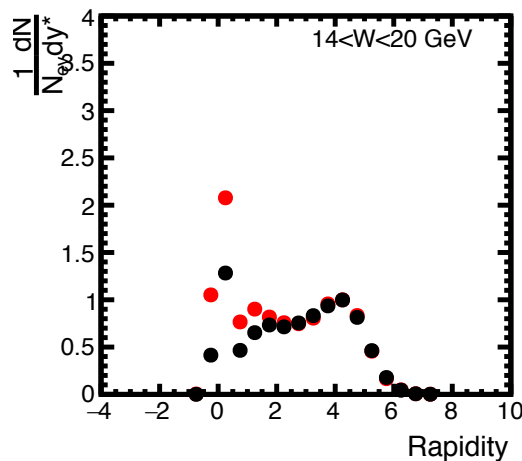
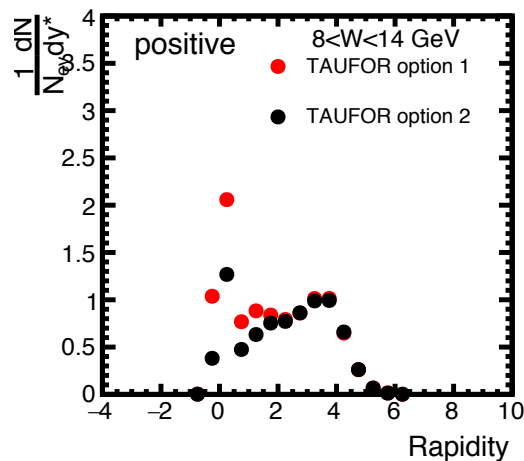
Rapidity distribution for all positive hadrons :

Change the third parameter of TAUFOR
from 1 to 2:

$$\tau_0 = 5 \text{ fm}$$



Rapidity distribution for positive hadrons, in three bins of W:

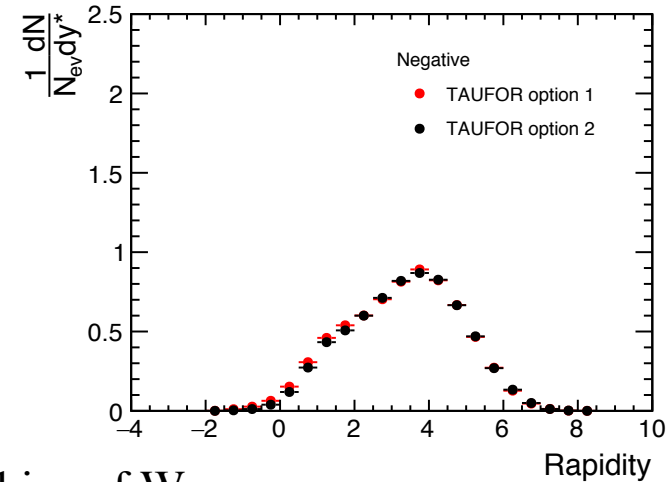


TAUFOR option 1 vs. option2 for negative in lab frame

Rapidity distribution for all negative hadrons :

Change the third parameter of TAUFOR
from 1 to 2:

$$\tau_0 = 5 \text{ fm}$$



Rapidity distribution for negative hadrons, in three bins of W:

